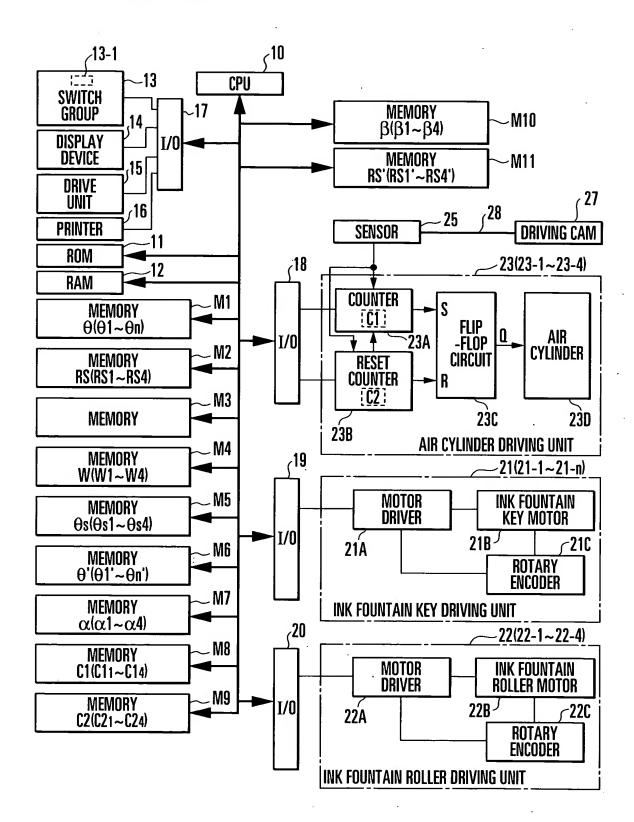
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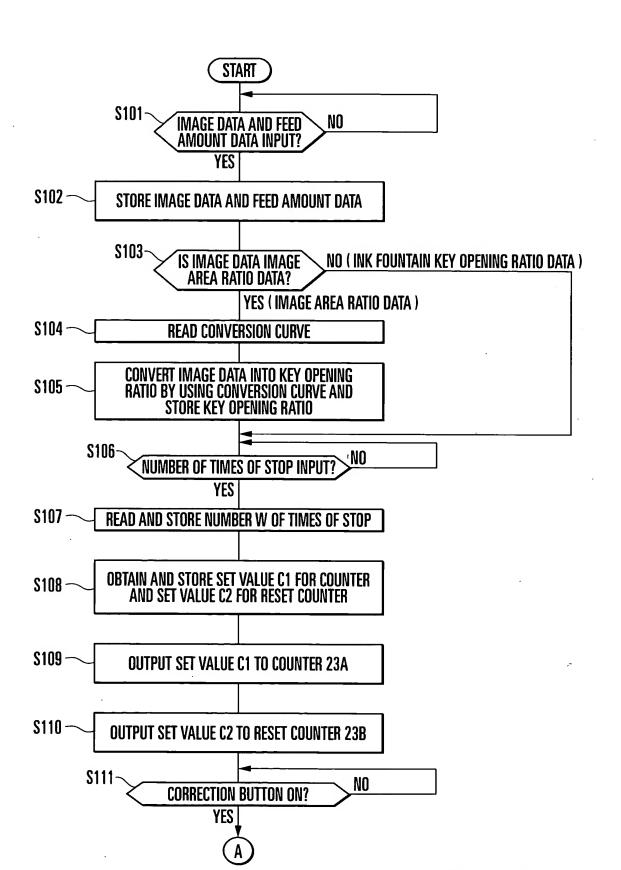


FIG. 2A

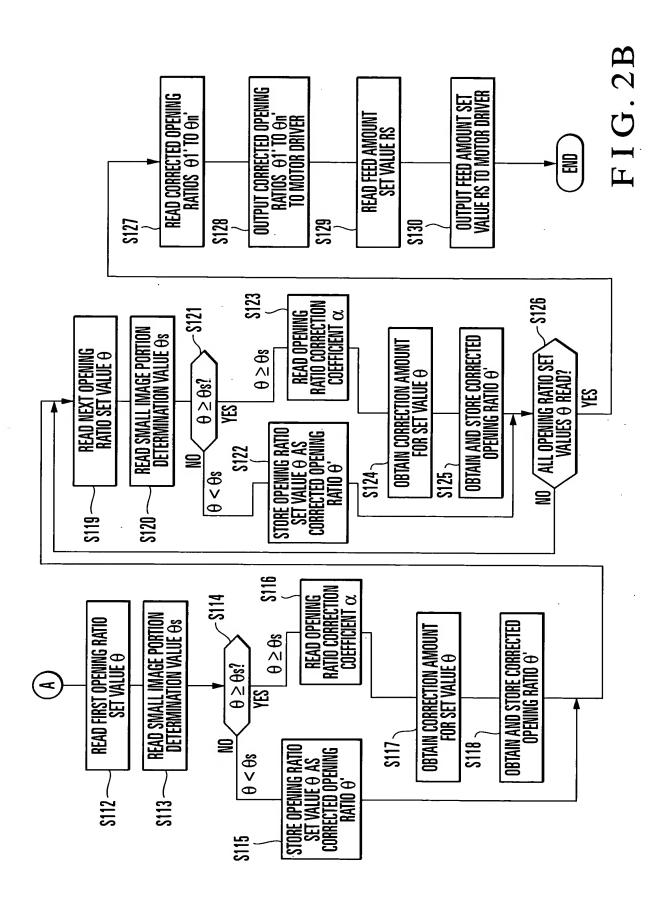
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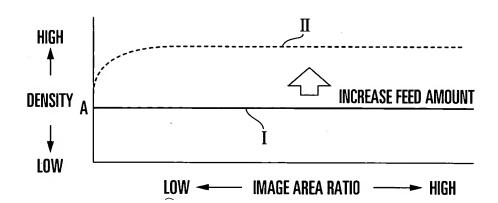
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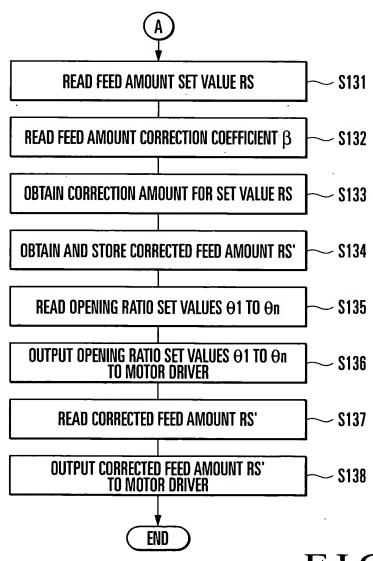
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F I G. 3



F I G. 4

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13-2 10ے -13 CPU **SWITCH** -17 GROUP **MEMORY** -M12 .14 $Km(Km1 \sim Km4)$ DISPLAY **I/0** DEVICE **MEMORY** -M13 15 Ks(Ks1~Ks4) DRIVE 27 24 COUNTER UNIT 16 28 25 **PRINTER SENSOR DRIVING CAM** 11 **ROM** 23(23-1~23-4) 12 RAM COUNTER **M1** S **MEMORY** [C1] **FLIP** $\Theta(\Theta1\sim\Theta n)$ **AIR** I/0 ·23A -FLOP **CYLINDER M2 MEMORY CIRCUIT** RESET RS(RS1~RS4) COUNTER l R [C2] **M3** 2**3**C 23D MEMORY 23B AIR CYLINDER DRIVING UNIT **M4 MEMORY** 21(21-1~21-n) W(W1~W4) **M5 INK FOUNTAIN** MOTOR **MEMORY** DRIVER **KEY MOTOR** Θ s(Θ s1 \sim Θ s4) I/0 21B⁻ **~21C** 21A **M6 MEMORY ROTARY** $\theta'(\theta 1' \sim \theta n')$ **ENCODER M7 MEMORY** INK FOUNTAIN KEY DRIVING UNIT $\alpha(\alpha 1 \sim \alpha 4)$ ₂₀ 22(22-1~22-4) . M8 **MEMORY INK FOUNTAIN MOTOR** C1(C11~C14) **ROLLER MOTOR** DRIVER **M9 MEMORY** 22B I/0 ~22C 22A C2(C21~C24) ROTARY M10 **ENCODER MEMORY** $\beta(\beta1\sim\beta4)$ INK FOUNTAIN ROLLER DRIVING UNIT M11 **MEMORY** RS'(RS1'~RS4')

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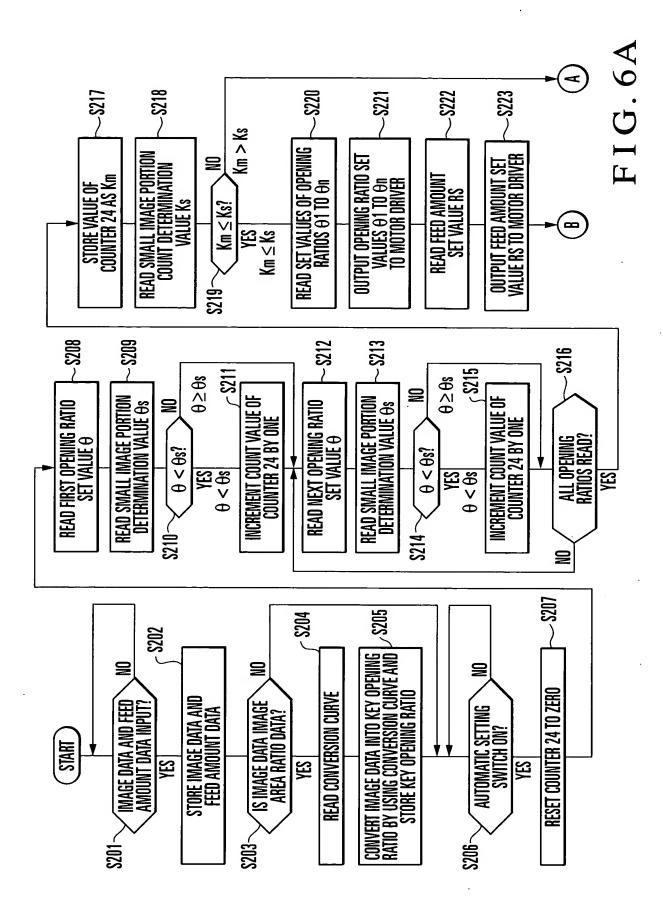
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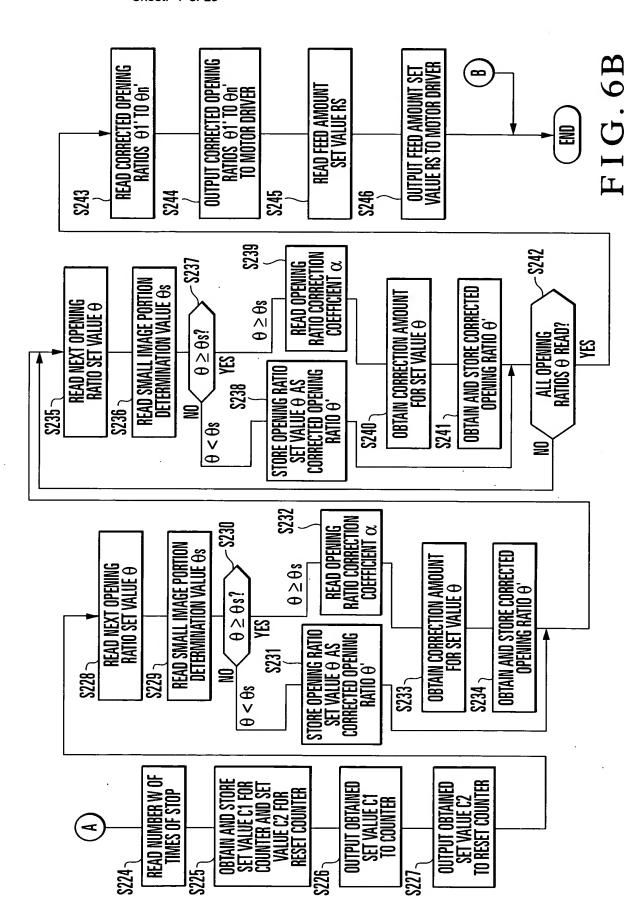


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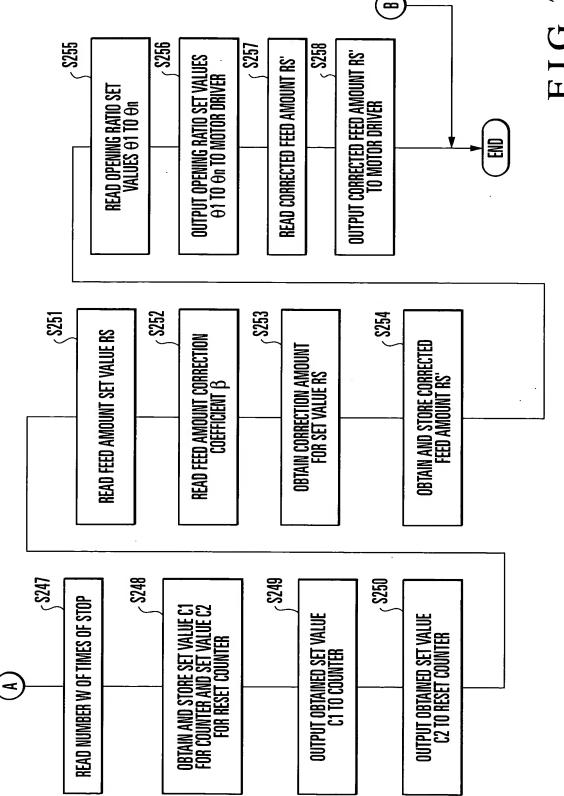
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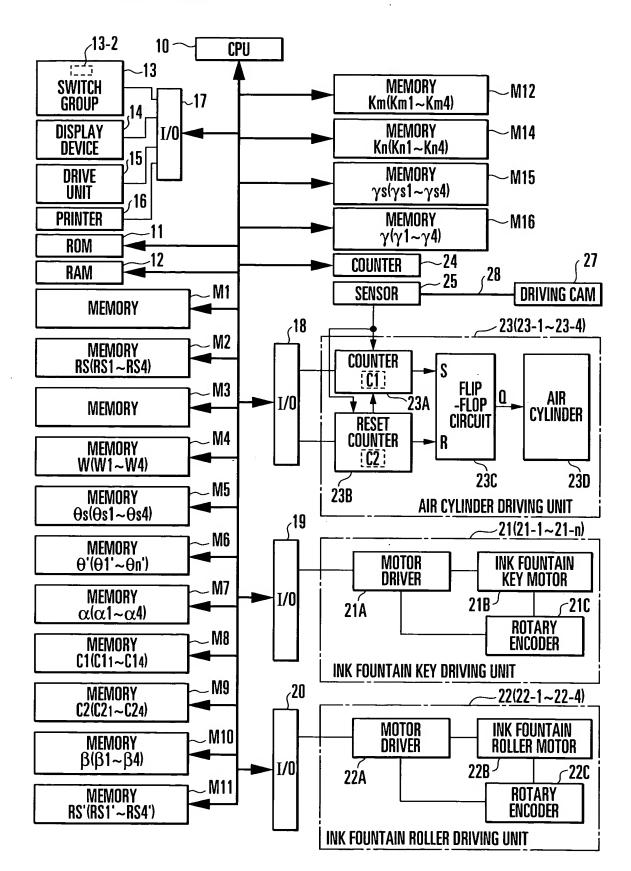
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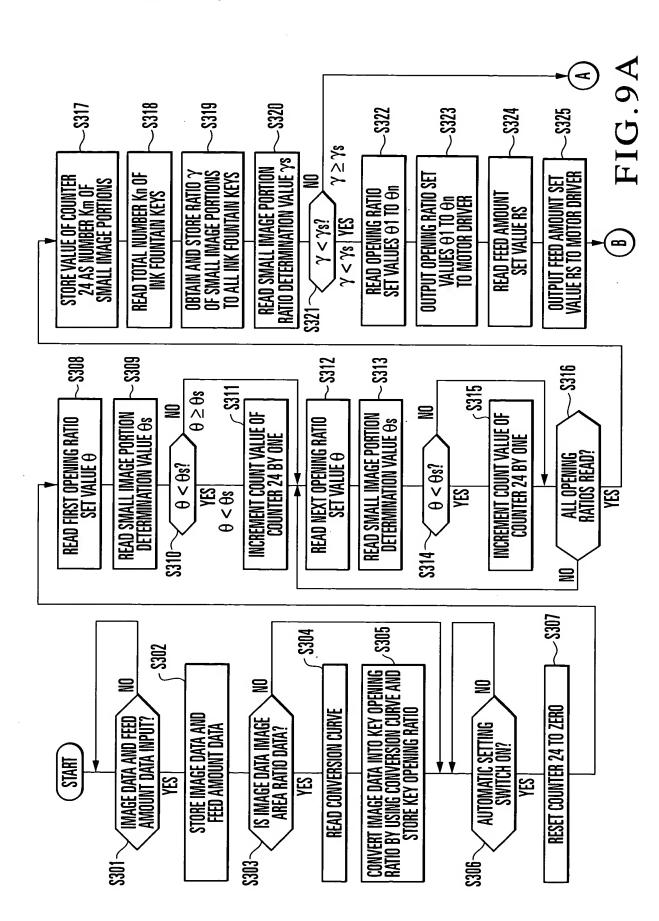


F I G. 8

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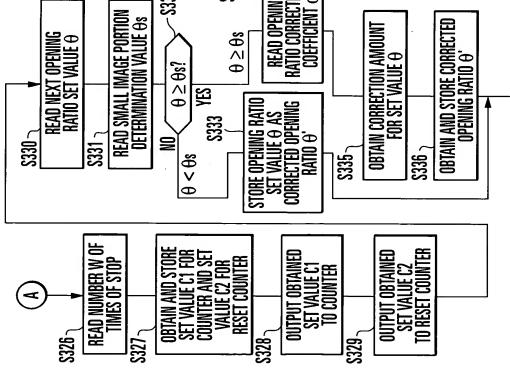
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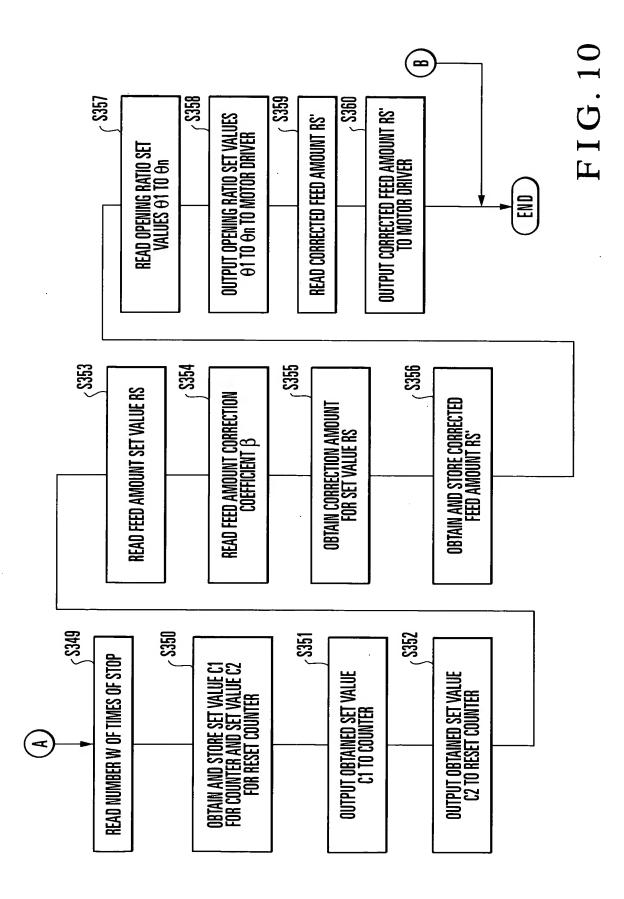


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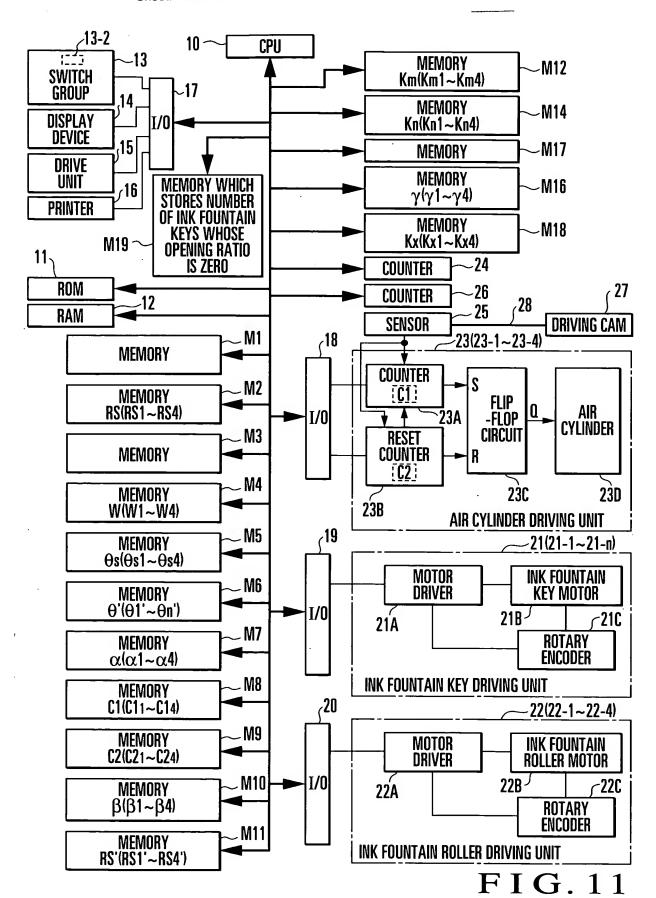
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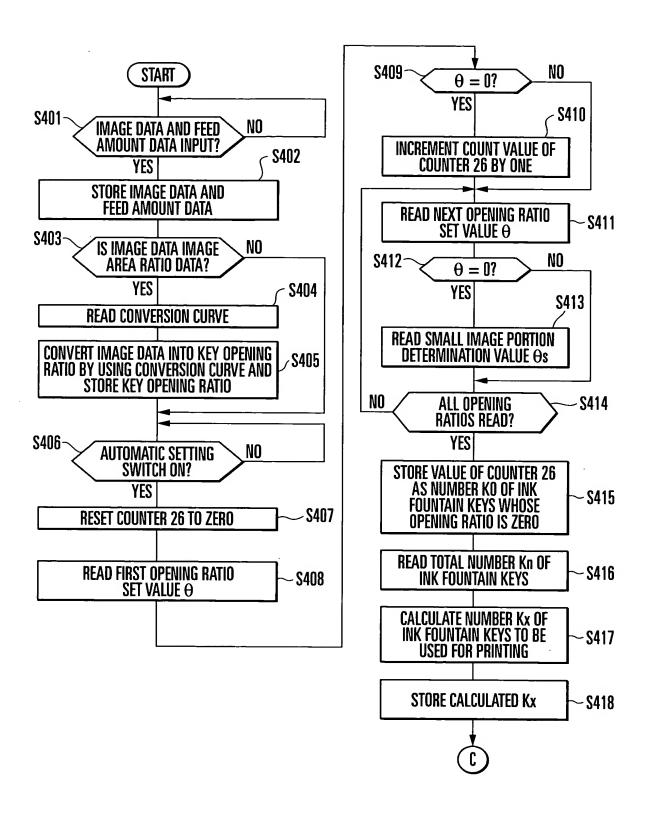


FIG. 12A

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NO

STORE VALUE OF COUNTER S429 24 AS NUMBER Km OF **RESET COUNTER 24 TO ZERO SMALL IMAGE PORTIONS READ FIRST OPENING RATIO S420 READ NUMBER Kx OF INK** SET VALUE O S430 FOUNTAIN KEYS TO BE USED FOR PRINTING **READ SMALL IMAGE PORTION S421 DETERMINATION VALUE Os** OBTAIN AND STORE RATIO γ NO **S431** S422 **OF SMALL IMAGE PORTIONS** $0 < \theta < \theta$ s? TO INK FOUNTAIN KEYS YES TO BE USED FOR PRINTING **S423 READ SMALL IMAGE PORTION** INCREMENT COUNT VALUE OF **S432** RATIO DETERMINATION VALUE YS **COUNTER 24 BY ONE** S433 NO $\gamma < \gamma_{\rm S}$? **READ NEXT OPENING RATIO** $\gamma \geq \gamma_s$ **S424** SET VALUE O $\gamma < \gamma_{\rm S}$ | YES **READ OPENING RATIO READ SMALL IMAGE PORTION S434 S425** SET VALUES 01 TO On **DETERMINATION VALUE** Θ s NO **S426 OUTPUT OPENING RATIO SET** $0 < \theta < \theta$ s? VALUES 01 TO On -S435 YES TO MOTOR DRIVER **CS427 INCREMENT COUNT VALUE OF READ FEED AMOUNT** ·S436 **COUNTER 24 BY ONE** SET VALUE RS **OUTPUT FEED AMOUNT SET** -S428 ·S437 **ALL OPENING** VALUE RS TO MOTOR DRIVER **RATIOS READ?** YES

FIG. 12B

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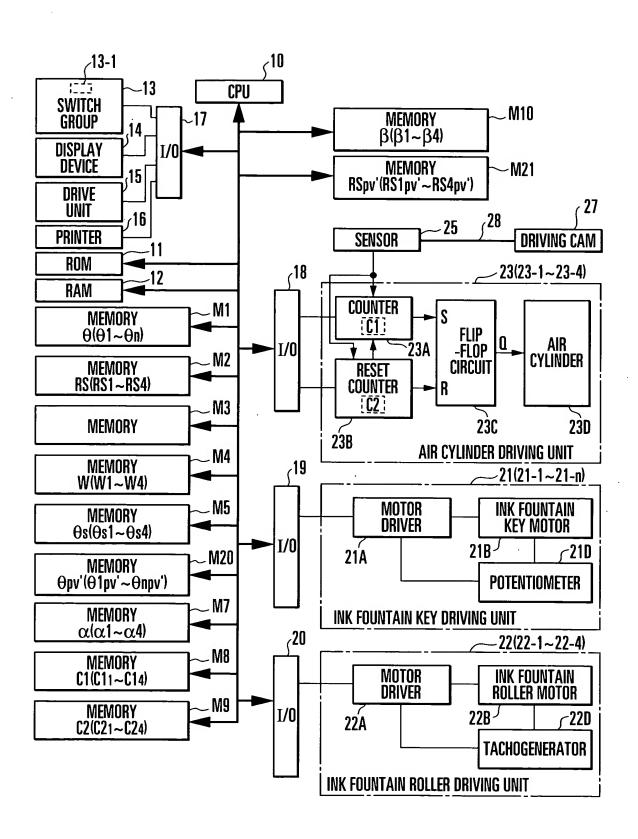
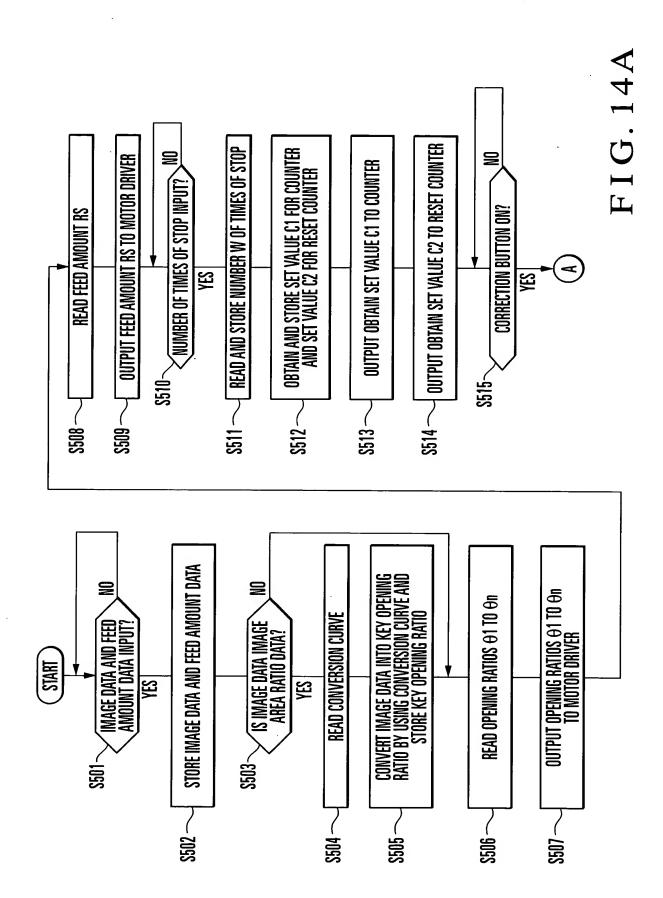


FIG. 13

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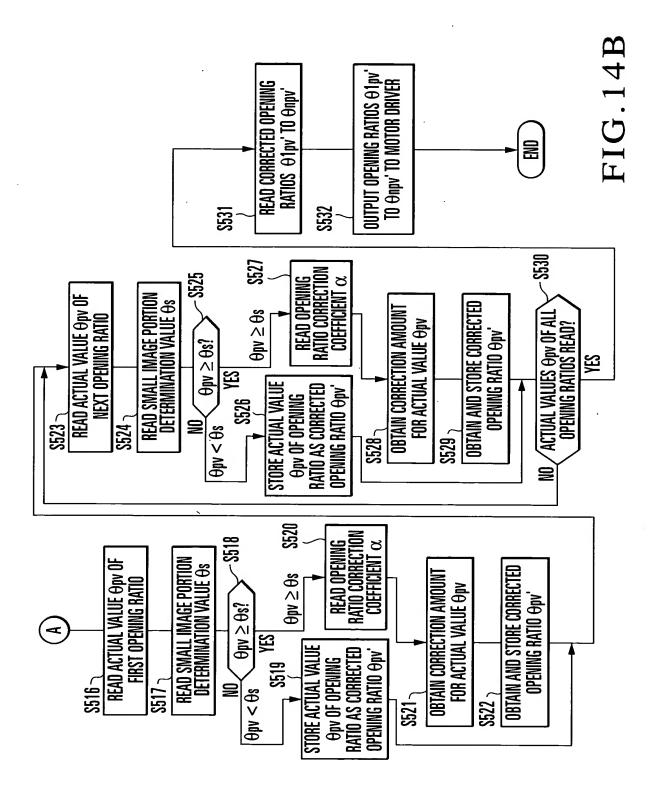


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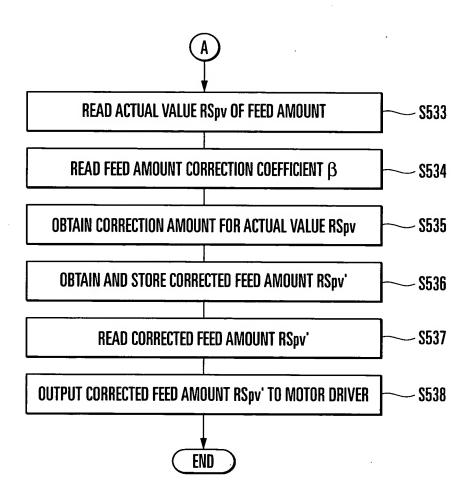


FIG. 15

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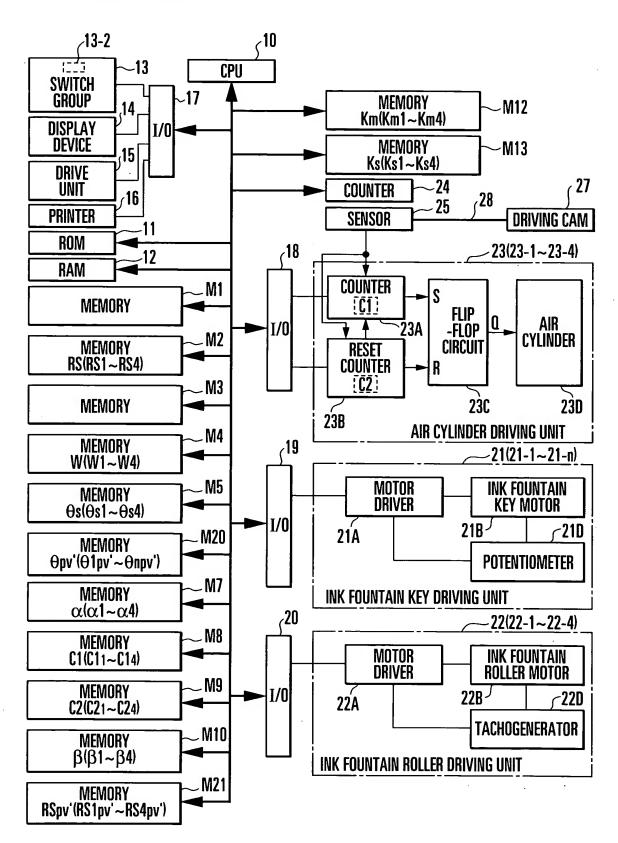
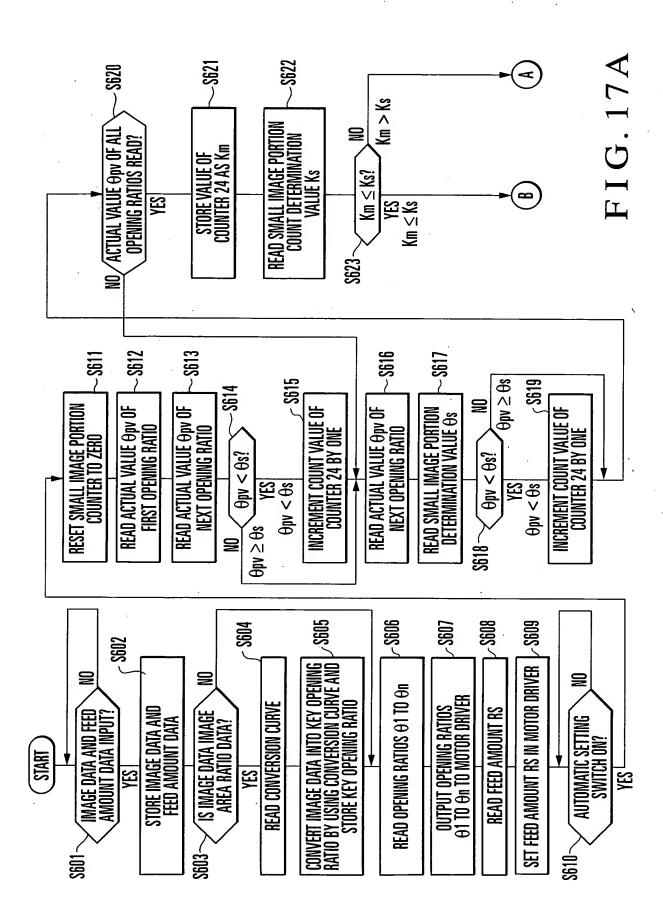


FIG. 16

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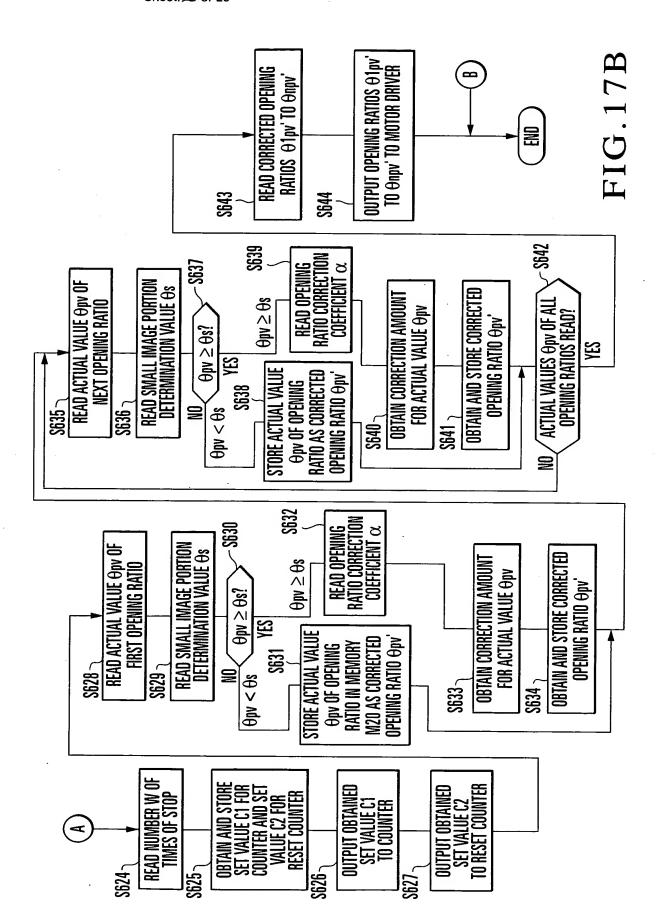
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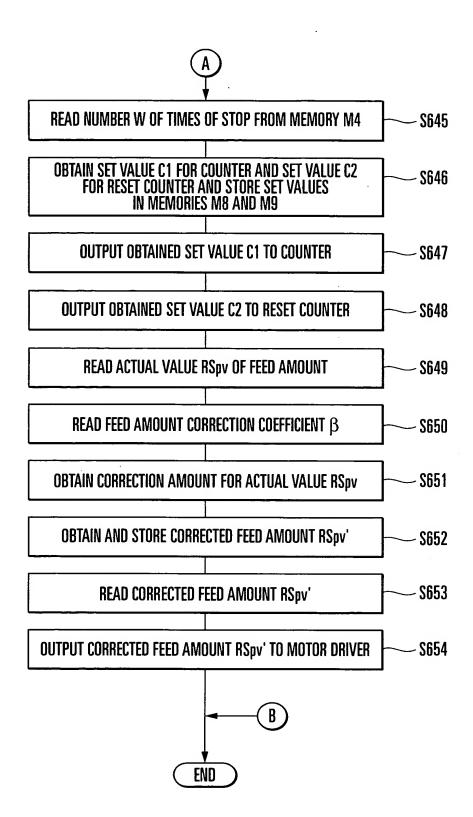


FIG. 18

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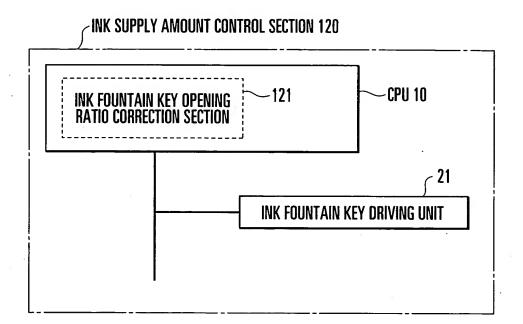


FIG. 19A

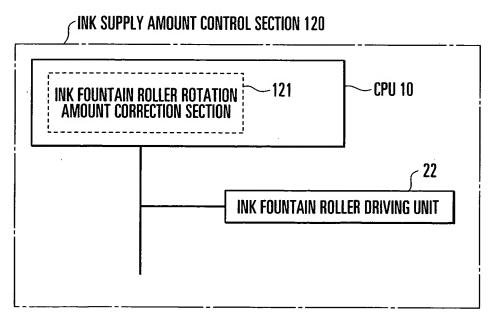


FIG. 19B

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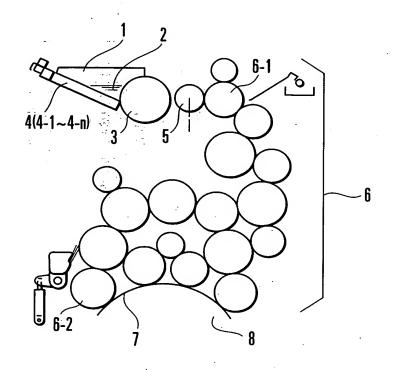


FIG. 20

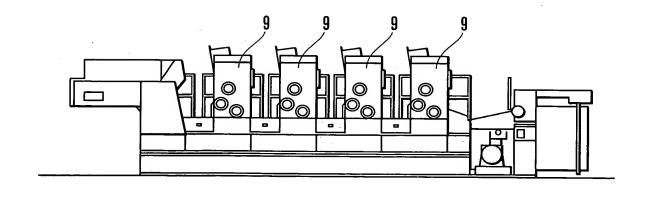


FIG. 21